

DEFINITIONS AND SPECIAL INSTRUCTIONS

1. Scope of survey

This survey covers shipments (for sale or for own use) of nonferrous castings products by manufacturers.

2. Figures to be reported

Companies with more than one establishment manufacturing the products covered by this survey are requested to complete a separate report form for each location. If you have not received a separate form for each of your establishments, please call the contact listed on the report form or write to the U.S. Census Bureau for additional forms.

a. Quantity and value of shipments

For the purpose of this report, the weight of castings reported should be the weight of the castings before machining. The removal of gates, risers, or sprues, tumbling, dipping, and sandblasting does not constitute machining operations.

If you operate a machine shop at the same location as your foundry and the before-machining weight of castings is not available from book records, your best estimates are acceptable.

The value represents the net sales price, f.o.b. plant, to the customer or branch to which the products are shipped, net of discounts, allowances, freight charges, and returns.

b. Shipments

Shipments for sale — Castings shipped to the trade.

Column (1) — Report the weight in 1,000 pound units of each type of casting shipped to the trade during the year.

Column (2) — Report shipments in thousands of dollars for only item codes 1099, 2099, 3050, 4070, and 5072. These codes are for the total of each metal group and are for shipment to the trade during the year.

Column (3), Shipments for own use — Report the weight of each type of casting shipped during the year for use by your company, or an affiliate, subsidiary, or parent company. Also includes castings produced and consumed at the same location in the production of finished products. If the weight of such shipments is not available, the weight of castings produced in your foundry may be used as the basis for an estimate.

Include shipments to other manufacturers, but exclude shipments received by you and reshipped without further processing.

3. Definitions of casting types

Sand casting (item codes 1011, 2011 and 9011) — Casting produced by pouring molten metal into a sand mold and allowing it to solidify.

Permanent mold casting (item codes 1031 and 2031) — Casting produced by introducing molten metal by gravity or low pressure into a mold constructed of durable material, usually iron or steel, and allowing it to solidify. Semi-permanent mold castings are made using an expendable core, such as sand.

Die casting (item codes 1041, 2041, 9031, 9051, and 9072) — Casting produced by introducing molten metal under high pressure into a metal mold or die and allowing it to solidify.

Centrifugal (item code 2050) — Casting produced by pouring molten metal into a spinning mold. Centrifugal force acts to distribute the metal uniformly around the interior of the mold.

Continuous cast (item code 2061) — Casting produced by introducing molten metal flowing by gravity into a water-cooled graphite die from which the solidified bar is continuously drawn.

Investment casting (item codes 1055 and 2061) — A replica (usually wax) of the part to be cast is coated with and suitably bonded to a refractory or ceramic powder. The replica is melted and drained away. The refractory or ceramic mold is then fired and molten metal is poured into it and allowed to solidify.

FORM MA331E

NONFERROUS CASTINGS

Product code	Item code	Item description
Aluminum and aluminum-base alloy castings except non-electric cooking utensils <i>Report quantity in thousands of pounds</i>		
3315240101	1011	Sand
3315240206	1031	Permanent and semi-permanent mold
3315210000	1041	Die
3315240421 3315240311	1055	All other (including investment)
XXX	1099	TOTAL (Sum of item codes 1011–1055)
Copper and copper-base alloy castings <i>Report quantity in thousands of pounds</i>		
3315250101 3315250206 3315250221 3315250411 3315250416		
3315250426	2011	Sand
3315250531	2031	Permanent and semi-permanent mold
3315220101	2041	Die
3315250536	2050	Centrifugal
3315250546	2061	All other (including continuous and investment)
XXX	2099	TOTAL (Sum of item codes 2011–2061)
Magnesium and magnesium-base alloy castings <i>Report quantity in thousands of pounds</i>		
3315280206	3011	Sand
3315220311	3031	Die
3315280211	3048	All other (including permanent, semi-permanent, and cast anodes)
XXX	3050	TOTAL (Sum of item codes 3011–3048)

REFERENCE LIST – Continued

FORM MA331E		NONFERROUS CASTINGS
Product code	Item code	Item description
3315220206	4051	Zinc and zinc-base alloy castings <i>Report quantity in thousands of pounds</i> Die
3315280201	4061	All other
XXX	4070	TOTAL (Sum of item codes 4051–4061)
3315220416	5072	Lead and lead-base alloy castings <i>Report quantity in thousands of pounds</i> Die

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